

Chapter 12

Germany: Foundations Supporting Talents

12.1 Education System

Bachelor's qualifications with the addition "Honours" ("B.A. Hons.") are excluded. (KMK 2010)

This sentence, in an official federal policy document dating back to 2003, is of great influence to the development of honors education in Germany. It effectively prohibits honors programs; students cannot have the completion of a program recognized concurrently with their regular bachelor diploma.

This might be one reason for the still limited development of 'official' honors programs in Germany, while the supporting infrastructure that would be needed for its development is generally speaking quite complete.

Another reason is the tradition of providing individualized financial support to students, often called *Stipendium*. There is an extensive support system in which universities themselves, private foundations or companies offer grants to students, to cover their living expenses (there are no tuition fees at public universities – see more information below). Often the students who can benefit from these programs are selected on the basis of 'talent', which can be defined in many ways. Mostly, selection is based on grades, motivation letters and/or interviews. While there is much focus on this individualized support system, there are fewer examples of extra educational opportunities for talented students as a group. However, the picture is varied throughout the different states of the federation Germany.

The country exists in its current form since 1990, when the former German Democratic Republic (Eastern Germany, DDR) merged into the (western) Bundesrepublik. Germany now consists of 16 states (*Bundesländer*), which have a large range of responsibilities and their own government (Box 12.1). Responsibility for education is mostly at the level of the *Bundesländer*. They each have a ministry of Education. The Federal Ministry of Education and Research¹ only creates general

¹ In German: *Bundesministerium für Bildung und Forschung*.

Box 12.1: Germany – The Basics

- 82 million inhabitants
- Capital: Berlin
- Federal republic
- 16 Bundesländer (states)
- Social-democratic/christian-democratic coalition in power

Box 12.2: Education in Germany

- Managed mostly by the Bundesländer
- Compulsory from age 6 to 15 in most Länder
- Primary education at *Grundschule*
- Four types of lower secondary (compulsory) education
- *Gymnasium* upper secondary education leads to university
- Higher education in research universities and universities of applied sciences (*Fachhochschulen*)
- University student numbers restricted for around half of all study paths
- Universities traditionally research-oriented, research also in institutes
- Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* (KMK) handles central matters

guidelines for education (Nuffic 2012, p. 5). Education policy is coordinated by a ‘standing conference of state ministers of education and cultural affairs of the Länder’, known as KMK (Box 12.2).²

Primary education is 4 years (age 6–10) and provided at *Grundschule*.³ Most pupils attend state schools, although other schools based on religion or method are available.⁴ The secondary school can be divided into two phases: Sekundarstufe I (covering the compulsory education period) and Sekundarstufe II (upper secondary education). Basically, there are four options for Sekundarstufe I, although the specifics differ per state⁵ (see Eurydice 2014, chapter 6.1, KMK 2012 and Fig. 12.1).

²In German: Kultusminister Konferenz (KMK).

³Before this, there is Kindergarten (age 3–6), which is not compulsory and not part of the official system, although most children attend. Responsibility is with the ministries for youth of the different Länder.

⁴For example Montessori and Waldorf/Steiner schools.

⁵The four options are:

1. *Hauptschule* (providing basic general education, only at lower secondary level) and
2. *Realschule* (providing more extensive general education, offering possibilities for entrance to higher (vocational) education) are mainly geared towards vocational education.
3. *Gymnasium* (preparing for general higher education entrance qualification)

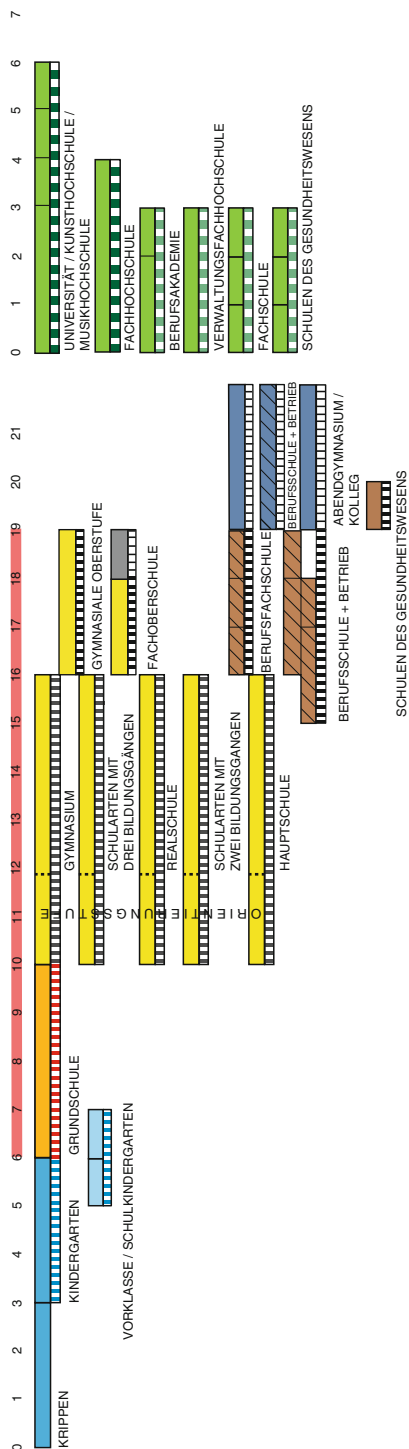


Fig. 12.1 Structure of the German education system (Eurydice 2014) see Fig. 3.1b for standardized legend

As Gymnasium offers ‘intensified general education’, most talented students are likely to be found here (Eurydice 2014, chapter 6.1 and 6.4; see also Freeman 2002, pp. 80–82).⁶

German 15-year-olds score above average among OECD countries in all subjects in the PISA report. Since 2003, it is one of the few countries to have improved in both mathematics performance and equity score (OECD 2013).

Germany’s higher education sector is impressive in numbers. There are 392 institutions of higher education (see Box 12.3⁷), offering over 16,000 study programs (Statistisches Bundesamt 2014, p. 5). They have a combined student population of approximately 2.4 million (BMBF 2014; HRK 2013).⁸ Almost 94 % of all students are taught at public higher education institutions (HRK 2014). The rest is taught at private or church-maintained institutions, which are predominantly small and specialized (HRK 2013).⁹

Box 12.3: Higher Education Landscape

110 universities

226 universities of applied sciences (*Fachhochschulen*)

56 specialized colleges of art and music

Historically, entrance to German universities was through the *Abitur* (exam)¹⁰ at a Gymnasium. The diploma awarded is called *Zeugnis der Allgemeinen Hochschulreife*. While most people still enter this way, in recent years the picture

4. *Gesamtschule* is a comprehensive school that offers teaching at different levels. In 2010, division of pupils among the different kinds of schools was as follows: *Hauptschule* 16.6 %; *Realschule* 25.0 %; *Gymnasium* 36.3 %; *integrierte Gesamtschule* 9.2 %; other types of schools offering several courses of education 7.8 %, special schools 4.2 %. (KMK 2012, p. 3). After completing Sekundarstufe I at *Hauptschule* or *Realschule*, there is usually a type of examination. Afterwards, there is vocational training available.

⁶Education at a Gymnasium traditionally takes 9 years, but some Länder are in the process of reducing this to 8, while in others 8- and 9-year courses are both offered. There was a general move towards 8-year gymnasium, but there has been a reversal in trend as parents consider 8 years to be too demanding for their children.

⁷The list of universities at www.bmbf.de/en/6574.php was used as a basis. Numbers differ slightly from the list used by the Statistisches Bundesamt 2014, but all major institutions are included on both lists. See for more information Appendix 1.

⁸The following institutions are part of the university system: *Universitäten*, *Technische Universitäten/Hochschulen* and other *Wissenschaftliche Hochschulen* of similar level, such as *Pädagogische/Erziehungswissenschaftliche Hochschulen*, *Medizinische Hochschulen* and *Philosophisch-Theologische Hochschulen* (Nuffic 2012, p. 10).

⁹The private institutions often focus on a very limited range of subjects, for example business administration, media studies or design. There are 239 government-funded institutions of higher education, compared with 113 private and 40 church maintained institutions.

¹⁰*Abitur* includes four or five subjects and at least two of those must be taken at an advanced level.

has become more varied.¹¹ To enter universities of applied sciences, students can also take exams for a specific diploma called *Fachhochschulreife*.

A qualification does not guarantee a place, as there are more potential students than places and studies are subject to quota. Places at universities are awarded using a number of different admission quotas, based on federal or state law (see Box 12.4).¹²

Box 12.4: Student Quota

For a lot of study programs in Germany student quotas are set. These quota can apply nationwide (for example in medicine), locally (per state/Bundesland) or per institution. There are local restrictions on admission to over 50 % of all study courses. For the study programs with nationwide quota, allocation is as follows:

- 20 % of places go to highest achievers;
- 20 % to those longest on the waiting list;
- a small number (2 %) to students disadvantaged in some way ('hardship cases');
- allocation of the rest of the places is up to the university. Usually grade point average is used as criterion, but selection through interviews and/or entrance examinations is also common.

The system of nationwide quota is centrally administrated by the Foundation for Higher Education Admission.

Participation in tertiary education is below the EU average in Germany, as indicated on Map 2.1 in Chap. 2. This is partly due to the fact that for quite a few jobs, qualifications from upper secondary education are sufficient. On-the-job-training is also very common: the concept of dual learning (working and learning at the same time) is well-known in Germany.

Most German universities are public institutions and while there are no tuition fees, students usually pay a small fee to the university (around € 60 per semester). For students, national grants and loans are available in the BaföG program, named after the law initiating it in 1971 (see BMBF 2014).¹³ Apart from that, students can also support themselves with grants and stipends from private institutions (more information below).

¹¹ Possibilities for people not holding this certificate have expanded. They can take tests to show that their level is sufficient to keep up with other students. Also, other schools than Gymnasiums can organize *Abitur* exams.

¹² In German: *Stiftung für Hochschulzulassung* (SfH). The states and the individual higher education institutions can also commission the Foundation for Higher Education Admission to operate a service for the relevant courses of study.

¹³ *Bundesausbildungsförderungsgesetz* (Federal Training Assistance Act). According to the Federal Statistical Office, approximately 979,000 students were awarded BaföG grants and loans in 2012. Roughly speaking, this amounted to around 20 % of the total number of students in higher education.

Germany has a long tradition of providing high-quality university education. The oldest is the University of Heidelberg, founded in 1386. Six other universities were founded in the fifteenth century. At present, German universities are found prominently in international rankings: 38 German institutions made the top-500 on the 2013 Shanghai list, with the University of Heidelberg, University of Munich and Technical University of Munich scoring highest.

When reviewing rankings, it is good to keep in mind that substantial research in Germany occurs in specialized independent research institutes. These research institutes are mostly organized in the form of societies. Most prominent example is the Max Planck Society, an association of 82 research institutes, many being ranked in the top of their respective field (Max Planck Gesellschaft 2014).¹⁴ While German research already scores well in international university rankings, its research achievements remain underestimated when just considering universities.

12.2 Culture and Policy Towards Excellence

The past fifteen years have witnessed rapid, fundamental, and far-reaching changes in the attitudes held and approaches taken to the topic of giftedness by schools, researchers, and ministries of education in German-speaking countries. (Ziegler et al. 2013, p. 386)

Generally speaking, German culture is somewhat ambivalent towards intentionally labelling academic excellence. Germany fosters an overall egalitarian tendency, based on the idea that too much praise leads to elitism. At the same time talent development in Germany has a long but sometimes difficult history (Ziegler et al. 2013¹⁵). For example, the former GDR had an intricate system of talent development, of which the most well-known example occurred in the field of sports (Nagy and Györi 2011, p. 79). Yet criticism of this program arose surrounding accusations of doping being a structural element (see for example Spitzer 2004).

After the reunification in 1990, the federal government recognized the need for talent development in order for Germany to keep up its economic achievements. Soon, a program was established and financial support for a number of programs and competitions was secured. By 2005, a yearly federal budget of approximately 100 million euros became available for nationwide activities (Van Eijl et al. 2005, p. 134, own translation). In the same year, the Excellence Initiative in research gave a significant boost to the support of excellence programming throughout the university system. In order to understand the current state of affairs in higher education, we will first discuss three elements of the culture towards excellence separately: provisions for children in primary and secondary education age, individual grants and programs by private foundations, and the Excellence Initiative.

¹⁴ Since 1948, seventeen Nobel laureates came from the Max Planck institutes. Other prominent research institutes include the Helmholtz, Fraunhofer and Leibniz societies.

¹⁵ The authors provide an overview of early initiatives.

12.2.1 Primary and Secondary School Age

An extensive network to identify talented students and provide them with extra opportunities is in place in primary and secondary education. This is partly provided in school, in the form of acceleration possibilities and extra lessons. There are also a few schools aimed exclusively at talents. Examples include a public school, Schloss Hansenberg in the state of Hessen, and a private school, Sankt Afra in Saxony. Both are boarding schools for gifted students in upper secondary school.¹⁶ There are also programs in which individual universities work together with gymnasia in different forms. One example is TUMKolleg, in which TU München works with the Otto-von-Taube Gymnasium. A maximum of 15 selected gymnasium students follow courses and do their own research project at the university.¹⁷ Also, different universities have programs, generally known as Frühstudium (early studies), in which talented secondary school students can follow courses at universities. More info can be found in Baumgartner 2014.

However, talent development is organized mainly outside or alongside the school system. A large number of competitions, talent camps, summer schools and talent development programs are available, mostly sponsored through private foundations. The best-known and largest programs are the German Student Colleges (*Deutsche Schüler Akademie, DSA*) and German Junior Colleges (*Deutsche JuniorAkademie, DJA*).

The DSA program, founded in 1993, has support from the federal government. Its basic idea is to have an extra-curricular program for highly motivated students in *Sekundarstufe II* (age 15/16 to 18/19) during the summer holidays. The academies each last 16 days and consist of a maximum of 6 courses with topics from different scientific disciplines (Deutsche SchülerAkademie 2012, see also Györi and Nagy 2012). Every year, about 1,000 talented students take part.

The DJA program was developed as a spin-off for younger children in 2003. It is organized regionally and meant for students in *Sekundarstufe I* (from class 7; age 12 to age 15/16). As in DSA, ‘particularly motivated and hard-working young people come together who want to expand their interests and abilities during the holidays’ (Deutsche JuniorAkademien 2014). Both programs are under the patronage of the German president.

There are also other national programs for talented youth, such as *Jugend forscht*¹⁸ which focus on science talents.

Apart from these academies, a tradition of competition exists. National competitions for talented students are held in many areas, including Olympiads in traditional school subjects as well as competitions for composers, writers and inventors, to name a few.

¹⁶ Schloss Hansenberg is based on a public-private partnership between the state of Hessen and (commercial) partners, see www.hansenberg.de. Sankt Afra claims to be the first publicly funded school of its kind. See www.sankt-afra.de/landesgymnasium-sachsen.html for more information.

¹⁷ More info can be found at tumkolleg.ovtg.de (German only).

¹⁸ See www.jugend-forscht.de

Most of the academies and competitions are supported by the federal ministry of Education.¹⁹ The ministry subsidizes the non-profit organization *Bildung und Begabung*, which organizes many of the events mentioned above. *Bildung und Begabung* presents itself as ‘the focal point’ for talent development in Germany, supporting around a quarter of a million talented young people per year.²⁰

On a side note: attention for gifted and talented children and youngsters has also found its way into teacher education and psychology programs. At least four special courses are available (See iPEGE 2010 for details²¹). Research on education of high ability students is carried out in different universities,²² most notably the International Centre for the Study of Giftedness (ICBF) at the University of Münster.²³

12.2.2 Individual Support from Foundations

While the federal government has focused on talent support in primary and secondary education since the 1990s, it has also started to focus on financial support for individual talented students in higher education since 2005. By now, it has built up an elaborate infrastructure to this end (BMBF 2013c). However, most of the financial support is indirect. The ministry helps to coordinate the efforts of different private (non-profit) foundations that offer support to talented students in the form of scholarships. In the StipendiumPlus team, 12 organizations are working together, each offering ‘support to students and young researchers with special talents’ (StipendiumPlus 2014). Many of these organizations have existed for decades, but are now part of one team and have decided to offer the same amounts of financial support to all accepted students. The team includes ideologically neutral organizations as well as others that are more politically associated, denomination-based or are run by the unions or employers’ associations. They have established common rules and aims in coordination with the federal ministry and work with the motto ‘Diversity in Unity’ (ibid, see also BMBF 2013b²⁴).

¹⁹ More info can be found at www.bundeswettbewerb.de/startseite. See also Nagy and Györi 2011.

²⁰ See www.bildung-und-begabung.de/ueber-bildung-und-begabung/ueber-uns for more info (German only).

²¹ The four described courses are ‘Specialist in Gifted Education’ (ECHA) at the Internationalen Centrum für Begabungsforschung, and the Master programs ‘Psychology of Excellence in Business and Education’ at LU München, ‘Bildungswissenschaft’ at Pädagogischen Hochschule Karlsruhe and ‘Begabungsforschung und Kompetenzentwicklung’ at the University of Leipzig.

²² Ziegler et al. 2013 provide an overview of research initiatives and topics, although these are mostly focused on gifted education in primary and secondary education.

²³ See www.icbf.de/en/ for more information.

²⁴ Their funding programs target German students as well as EU students and other international students who are entitled to permanent residence in Germany. The rules are laid down in a document by the federal ministry, BMBF 2013b.

At the end of secondary school, there are different possibilities for excellent students to apply for grants to support their university studies. Through one website (stipendiumplus.de) students can find all foundations offering scholarships and choose where to apply. For most of these grants, applications can already be made before entering the university.

Depending on the chosen foundation, a student accepted into the stipendium program ‘either receives “only” scholarship, or he is granted a scholarship and a special development opportunity. Generally, that involves studying in a group in which the student is assisted by an older student mentor and familiarizes himself with the educational institution, meets contemporaries with similar interests, and attends various events and scientific conferences’ (Nagy and Györi 2011, p. 81; see also Grosch 2013).²⁵ Each year, around 25,000 students and 5,000 Ph.D. students are supported by these foundations (BMBF 2013c). This amounts to approximately 2 % of all university students. From 1998 to 2012, the amounts involved in these grants rose from around 50 million euros to 175 million euros per year.

In addition, there is also the public-private Germany Scholarship (Deutschland Stipendium). This award, introduced in 2011, ‘provides financial and non-material support to high-achieving and committed students from all over the world. Modeled after the principle of public-private partnership, businesses, foundations or private individuals sponsor young talent with a pledge of 150 euros per month. The Federal Government matches this amount with another 150 euros’ (BMBF 2013a). These scholarships are awarded by the universities, which also set the criteria. ‘In addition to academic achievement, the criteria for selecting scholarship recipients include social commitment and personal achievements, such as a student overcoming challenges or obstacles in his or her social or family background’ (ibid). This grant is thus not only used as talent development tool, but also as an emancipatory measure. In 2012, almost 14,000 students were supported.

In addition to these government-supported or -coordinated programs, there are many more grant opportunities available to excellent students, either from other foundations or specific to a university or field of studies. In some cases, the foundations supplying grants also present their students with extra courses, network meetings and other forms of support, or the grants are specifically meant to follow studies abroad (see for some examples Baumgartner 2014). In short, financially and on an individual basis, talented students in Germany have many opportunities to apply for (financial) support (Box 12.5). However, selection is competitive: out of the approximately 1.7 million university students in Germany,²⁶ around 40,000 (just under 2.5 %) qualify for support from one of the organizations in StipendiumPlus or the Deutschland Stipendium.

²⁵An example is the Max Weber program in Bavaria, which will be described under the Elite Network of Bavaria below.

²⁶See Appendix 1 for a list of student numbers at all universities.

Box 12.5: Key Players in Excellence

The main institutions involved in excellence in education are:

- The Standing Conference of the Ministers of Education and Cultural Affairs (KMK)
- The individual ministries of education for the Bundesländer
- German Rector's Conference (HRK)
- German Council of Science and Humanities (*Wissenschaftsrat*)
- *Bildung und Begabung*, organizer of Deutsche SchülerAkademie and Deutsche JuniorAkademie
- StipendiumPlus, private foundations supporting talents working together
- Elite Network of Bavaria (front runner in development of honors programs)

12.2.3 Excellence Initiative

The German culture towards excellence has also been influenced by another very relevant development, the 'Excellence Initiative' (*Exzellenzinitiative*). In 2005, the federal government decided to organize a competition 'to sustainably strengthen research at Germany's universities and to raise the visibility of German science and research vis-à-vis our international competitors' (Deutsche Forschungsgemeinschaft 2014). This was a radical turn of policy, which prompted a lot of discussion. According to DFG – the largest independent research funding organization in Germany and one of the organizers of the competition – it meant a departure 'from a long-cherished – and fatally wrong – conception that all universities are equal and hence should be treated equally. Instead, the Excellence Initiative pursued a path of inequality and of funding elites' (ibid).

In two rounds of competition, allocation of funds was made. Funding was in three categories: for excellent Graduate Schools to promote young researchers, Clusters of Excellence to promote top-level research and Institutional Strategies to strengthen the institution and its research setting as a whole. The first and second rounds in 2006 and 2007 resulted in the appointment of nine 'excellent universities'. This received a lot of attention in the media. In June 2012, funding decisions for the third and final round of the Excellence Initiative were made. The committee selected 45 graduate schools and 43 clusters of excellence, as well as 11 excellent universities (partly the same universities as before) (BMBF 2012). The Excellence Initiative has been very important for promoting a positive cultural shift towards excellence in Germany. The Initiative has brought the concept of excellence to the university system, generated a lot of attention, stimulated research and led to a culture change of affirming excellence in the universities, which are now more focused on competition (Wissenschaftsrat 2010, p. 12). According to the influential German Council of Science and Humanities (*Wissenschaftsrat*), this new focus

should also influence the overall university structure. In a 2010 report, the Council recommended more flexibility in the university system.²⁷

12.2.4 *Excellence in Higher Education*

We have now seen three developments that are relevant for the culture towards excellence in German higher education. First, there is an extensive infrastructure for children in primary and secondary school, mostly organized in academies and competitions outside the school system. Second, a large number of individual stipends or grants are available to talented students in higher education. Third, the Excellence Initiative has brought the concept of excellence to the university system. What does this mean for excellence in higher education?

In higher education, development of special programs for excellent students is still limited. As said before, a regulation regarding honors programs was set in 2003, stating that awarding bachelor qualifications with the addition ‘Honours’ is not possible (KMK 2010). The exact reason for this regulation is not known, but it might be more related to practical reasons than to a specific view towards the development of excellence programs.

The bachelor diploma was unknown in Germany until the start of the Bologna Process. When the KMK made regulations about bachelor diplomas in 2003, it wanted to avoid confusion. It is still unusual to enter the labor market with ‘just’ a bachelor diploma, as the diploma is not very prestigious in general, and the addition ‘with honors’ might in fact only lead to confusion with the term ‘honorary’.²⁸ This has led some universities to be cautious with the development of special provisions for talented students, and especially with calling them honors programs. However, other universities did not see this as a problem and worked around the legal restrictions by awarding special additional diplomas for participation in such programs. The fact that the term ‘honors’ is not easily used in Germany was also problematic for us when searching for these programs (Box 12.6).

Box 12.6: Local Terminology

The term honors is used in Germany, but not very common (possibly due to the legal restrictions). Local terms used for excellence programs include:

- *Exzellenzprogramm* (excellence program)
- *Talentprogramm* (talent program)
- *Elitestudiengang* (elite study path)
- High Potential program
- *Exzellenzförderung/Begabtenförderung* (promotion of excellence/giftedness)

²⁷ In the report, it explicitly names the Dutch University College Utrecht and the University of Maastricht as examples of differentiation within the university system.

²⁸ Personal communication from Stephan Bedke at Elite Network of Bavaria, April 2014. See interview in Appendix 4 for more details.

12.3 New Developments

It has become more common to talk about elite, excellence and talent in Germany over the last few years. This has been institutionalized since the start of the Excellence Initiative, which can be seen as a culture change. Also, individual financial support is made available widely, but the development of honors programs is still limited. How this will develop in the coming years, is hard to say. An important question is what will come after the Excellence Initiative, when this program finishes in 2017.

One other development deserves mentioning. In recent years, both companies and students themselves have started to form online communities and organizations focusing on providing opportunities to excellent students. An example is e-fellows.net, which aims to ‘foster talented students by offering the first online scholarships in Europe. Through these scholarships, e-fellows.net supports the highest qualified and talented university students by offering services and creating a unique network for their studies and career’.²⁹ The network was founded in 2000 by three large companies and is sponsored by many more. Recently, the Austrian students4excellence program, which had a somewhat similar approach, was incorporated into e-fellows.net. These networks may play an even larger role for excellent students in the future, especially if initiatives are not taken by universities themselves.

12.4 Honors Programs per University

Germany has a rich university landscape. In total, there are 110 research universities with an added total of about 1.7 million students. A full list of all German research universities that were contacted and their replies can be found in Appendix 1. Eventually 107 out of 110 universities responded, three did not provide an answer.³⁰ The resulting list of programs was then compared with preliminary findings for an overview prepared by TU München master student Raphaela Baumgartner, who kindly provided her findings to us (Baumgartner 2014). She managed to find more programs and the extra programs were added to the list.³¹ In all, 17 universities with

²⁹ See www.e-fellows.net/UeBER-UNS/About-us

³⁰ Most of this work has been carried out by Utrecht University honors students Margit Ruis, Floris van Rees, Nico Brinkel and Florian Sloots.

³¹ The different results from Baumgartner’s and our own research shows that in some cases, information about programs for excellent students is not spread throughout the HEI, as at least one HEI where Baumgartner managed to find an honors program answered ‘no’ on our question if they had a program according to our definition. Possibly this is related to our use of the term ‘honors’, which is not widely used in Germany and in fact might scare off HEIs who are aware of the KMK regulation forbidding bachelor degrees with the addition ‘honours’. We would like to thank Raphaela Baumgartner and her supervisor Dr. Jutta Möhringer for sharing information with us.



Map 12.1 German universities with honors programs, 2014

honors programs according to the definition in Chap. 2 were identified, with some running more than one program. They are shown on Map 12.1 and in Table 12.1.

The universities with honors programs are not distributed evenly over the country; eight of them are in Bavaria. Here, universities have a joint program through the Elite Network of Bavaria (*Elitenetzwerk Bayern*). This network and all of its programs will be discussed together. Apart from the *Elitenetzwerk*, there are also other provisions for excellent students in Bavaria, such as the *Bayerische Elite Akademie*, which is organized outside the university system and takes place during

Table 12.1 Honors programs at German universities

| University (<i>state</i>) | No. of students (whole institute) ^a | Honors form | Name of program |
|--|--|--------------------------------|--|
| <i>Niedersachsen</i> | | | |
| Leuphana University Lüneburg | 8,151 | Multidisciplinary | Studium Individuale |
| University of Oldenburg | 12,269 | Disciplinary | Honours-Programm Niederlandistik |
| <i>Hamburg</i> | | | |
| TUHH | 6,584 | Disciplinary | GES_Plus |
| <i>Baden-Württemberg</i> | | | |
| University of Freiburg | 24,157 | Multidisciplinary | University College Freiburg |
| University of Ulm | 9,846 | Disciplinary/interdisciplinary | Eliteförderung |
| <i>Rheinland-Pfalz</i> | | | |
| WHU Otto Beisheim School of Management | 990 | Disciplinary | Bachelor in International BWL/Management |
| <i>North Rhine-Westphalia</i> | | | |
| University of Bonn | 31,878 | Interdisciplinary | Bonner Honors Program |
| University of Paderborn | 19,312 | Disciplinary/interdisciplinary | Exzellenzprogramm, Eliteförderprogramm EIM |
| <i>Saarland</i> | | | |
| Saarland University | 17,800 | Disciplinary | Bachelor-Förderprogramm |
| <i>Bavaria</i> | | | |
| Ludwig Maximilians Universität München | 47,959 | Interdisciplinary | Elite Network Bavaria |
| University of Erlangen-Nürnberg | 36,610 | Interdisciplinary | Elite Network Bavaria |
| Technische Universität München | 35,761 | Interdisciplinary | Elite Network Bavaria, Junge Akademie, best.in.tum |
| University of Würzburg | 26,577 | Interdisciplinary | Elite Network Bavaria |
| University of Regensburg | 20,482 | Interdisciplinary | Elite Network Bavaria (with bachelor entry) |
| University of Augsburg | 19,096 | Interdisciplinary | Elite Network Bavaria |
| University of Bayreuth | 12,520 | Interdisciplinary | Elite Network Bavaria |
| Katholische Universität Eichstätt – Ingolstadt | 5,171 | Interdisciplinary | Elite Network Bavaria |

^aSource: Statistisches Bundesamt (2014, pp. 31–33)

the semester breaks of three subsequent semesters.³² Generally speaking, the promotion of talent development can differ per state, as the Bundesländer all set their own rules and policies in education.

The programs that were found at the universities are very diverse, varying from small disciplinary programs aimed at deepening knowledge, to large interdisciplinary programs offered university-wide. There are also two full multidisciplinary bachelor programs for selected students, in Lüneburg and Freiburg. While both are based on the Liberal Arts and Sciences model, they each take a different approach. In the relatively small Leuphana university Lüneburg focus is on the individual student, who can choose his/her own program from existing courses, as is further described below. In the larger university of Freiburg, the ‘Dutch University College model’ is followed, bringing all students together in one multidisciplinary environment and on one campus. The group focus (bringing excellent students together) as found in Freiburg is rare in the German context, where focus is mostly on the individual student. This is in line with the more general strategy of supporting individual talented students with grants and stipends. More information about grant and stipend programs for talented students, as well as a more detailed overview of existing programs to support the more able ones can be found in Baumgartner’s thesis (2014). She also shows a number of fast track promotion programs, aimed at attracting the best students to a fast Ph.D. program, already starting the program in their master phase.

Two situations illustrate our choices what to include and not to include as honors education.

The first is the situation of a private (but state-recognized) university, which operates a strict selection process for all its programs. An example is Jacobs University in Bremen. Here, admission requirements set for all programs are very high and include GPA, an essay, teacher recommendations and SAT scores. However, the university offers regular programs and does not have special honors tracks and is therefore not included on our list below.

The second situation concerns universities saying that they do have a special educational offer for individual talented students, but no official program. For example, the Ruhr University Bochum promotes study for ‘talented bachelor students who wish to do more than the regular study programs, have the possibility to achieve thirty additional credit points within the regular BA of 180 credit points in order to get an additional certificate’.³³ As this is not an official program, it is not included on the list below.

³² More info can be found at www.eliteakademie.de

³³ Personal communication from Monika Sprung, Director International Office Ruhr University Bochum, April 2014. See also www.ruhr-uni-bochum.de/universitaet/pdf/RUB-Hochschulentwicklungslungsplan2014-2019.pdf (page 14).

Universities with honors programs according to our definition are shown in Table 12.1, ordered by state. A full list of universities can be found in Appendix 1.

We now move to our discussion of individual honors programs that were found in German universities, using the federal ministry's list of 110 public and private universities (see Appendix 1) as a basis.

12.4.1 *Leuphana University Lüneburg*

In October 2012, three directors of the Leuphana University Lüneburg decided to create the Studium Individuale program, based on the American Liberal Arts and Sciences system. It allows students to choose all the courses in their curriculum, ignoring disciplinary borders. The main goal involves teaching students to look at issues from different perspectives and find solutions to complex issues. The program is meant for motivated students wishing to create their own profile for the labour market. Every year 35 students are selected. Selection is based on additional activities students have performed in the past (showing for example leadership qualities or community service), a written test and an interview. Accepted students follow courses at different majors based on their individual objectives. During the first semester the students develop their knowledge on the fundamentals of science. In the second semester the students choose 1 of the 13 minors (the Studium Individuale program itself is considered their major). After that, the students follow 15 modules, in which they can discover different disciplines. They end the program with a bachelor thesis and an oral exam. At the end of their studies the students receive a Studium Individuale bachelor certificate. This grants access to different master courses, based on the courses the student has followed (Table 12.2).

Table 12.2 Leuphana University Lüneburg – Studium Individuale

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | Leuphana University Lüneburg |
| <i>Form</i> | Multidisciplinary full bachelor program |
| <i>Target group</i> | Bachelor students |
| <i>Admission</i> | Selection based on CV, test and interview |
| <i>Description</i> | Individualised full bachelor program for selected excellent students, based on Liberal Arts and Sciences model |
| <i>Founded</i> | October 2012 |
| <i>Participants</i> | Maximum of 35 per year |
| <i>Website</i> | www.leuphana.de/bachelor-studium-individuale.html |

Table 12.3 University of Oldenburg – Honours-Programm der Niederlandistik

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | School of Linguistics and Cultural Studies at the University of Oldenburg |
| <i>Form</i> | Disciplinary program |
| <i>Target group</i> | Second year bachelor students |
| <i>Admission</i> | Invitation, based on grades |
| <i>Description</i> | Top students get invited to a program where they deepen their knowledge and improve their reflective and analytical skills |
| <i>Founded</i> | Winter semester 2009/2010 |
| <i>Participants</i> | Maximum of 8 per year |
| <i>Website</i> | None |

12.4.2 University of Oldenburg

The goals of the Honours-Programm der Niederlandistik are to provide students a deeper insight in the content of the bachelor program, to motivate the students for the master program, to develop the student's reflective and analytic skills and to create a platform where motivated students can meet. Every year a maximum of eight students are admitted into the program. Students with excellent grades in the first year get invited in a personal letter. The students then decide if they want to accept this invitation. The program takes two semesters. Several events are organized where students and teachers meet. After a kick-off event, students follow four lectures per semester. Half of these focus on linguistics and half on literature. The topic of a final lecture is based upon the wishes of the students. Besides, the students get mentored by faculty to help them with their academic progress. The program ends with an informal event, such as an excursion or a dinner, in which students receive a certificate (Table 12.3). More info in the interview with student Laura Peters in Box 12.7.³⁴

12.4.3 Technical University Hamburg-Harburg

The GES_Plus program was started to promote the international image of the university and the city of Hamburg. It is designed for top students interested in spending time at a university abroad and complete an internship during their bachelor program. The regular General Engineering Science program has a large interdisciplinary aspect. Students participating in the GES_Plus program receive the opportunity to focus on a certain specialization during their stay abroad. The program takes 4 years, 1 year longer than the regular program. Students can apply at the start of their second bachelor year. Selection is made based on motivation, language skills, grades and finally an interview.

³⁴ This interview was conducted by Nico Brinkel.

Box 12.7: ‘Teachers Spend Extra Time on You’

Interview Laura Peters, student in Honours-Programm der Niederlandistik since summer 2013.

Why did you decide to join the program after you received the invitation?

‘In the first place I felt honored I was invited and that they selected me. Secondly (...) this seemed like a good opportunity to learn more about Dutch. Also I find it interesting to learn more about the research the teachers conduct, because during the regular program we do not really get an impression. I think I have a much better overview now. It is very interesting.’

How do you like it so far?

‘It is really nice. The department of Dutch is already a small department with much interaction, but with the honors program the teachers spend extra time on you. There is also more room to talk with the teachers and get to know them, and because of the honors program you start to realize the teachers are personally interested in the students.’

Do you know any other honors programs?

‘No, I have never heard of other programs and I think this program is unique in Germany. When our teacher told about it, this was new to everyone and it immediately sounded very interesting. We do of course know study programs with tough selection, but I know nothing similar to this.’

How do people in Germany look towards excellence? Do you think it is undervalued?

‘I noticed that at my former school, the teachers always focussed on the students that have problems. This is still mostly the case at the university, so I think the German culture is mostly focussed on the weaker students. For the good students there is less attention. This is also what the teacher of the honors program told me. She found it weird that this focus was always on the weaker students, so to change this attitude she decided to start the honors program.’

Before the selected students leave for their chosen destination, they complete courses in language and the culture of their destination. Then they go to a partner university abroad where they focus on their specialization. The second semester of this year is spent on an industrial internship in a company in the same country. Graduates receive a special diploma, besides their regular diploma. The program is supposed to enable participants to choose a wider range of master programs and qualify them for master programs at top universities abroad (Table 12.4).

Table 12.4 Technical University Hamburg-Harburg – GES_Plus

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | General Engineering Science bachelor program at Technical University Hamburg-Harburg |
| <i>Form</i> | Disciplinary program |
| <i>Target group</i> | Second-year bachelor students |
| <i>Admission</i> | Based on grades, language skills, motivation and interview |
| <i>Description</i> | Top students get the opportunity to study abroad and do an internship there |
| <i>Founded</i> | 2012 |
| <i>Participants</i> | Around 7 per year |
| <i>Website</i> | www.tuhh.de/alt/tuhh/education/degree-courses/bachelors-programs/ges-plus.html |

Table 12.5 University College Freiburg

| | |
|-------------------------------|---|
| <i>Organizing institution</i> | University of Freiburg |
| <i>Form</i> | Multidisciplinary full bachelor program |
| <i>Target group</i> | Bachelor students |
| <i>Admission</i> | Based on grades, language skills, motivation and interview |
| <i>Description</i> | Full English-language bachelor program in Liberal Arts and Sciences for selected excellent students |
| <i>Founded</i> | 2012 |
| <i>Participants</i> | 160 (total in 2013/2014) |
| <i>Website</i> | www.ucf.uni-freiburg.de |

12.4.4 University of Freiburg

The University of Freiburg started with a Liberal Arts and Sciences program organized in a special College in October 2012, as the first of its kind in Germany. Selection is competitive and based on grades, a study-orientation-test, CV, English proficiency, a motivation letter and finally an interview.

The program in the University College Freiburg consists of courses in four study areas: the Core, the Language, the Major and Electives. In the Core all students are intensively trained in general academic skills. The Language part ensures that all students can communicate on academic topics in excellent English and good German, and ideally acquire a good grounding in a third language. In the Major students specialize in a specific academic field. The program aims to provide sufficient depth to make admission into disciplinary master programs possible. The Electives area enables students to either pursue interdisciplinary studies of their choice, engage in more practically oriented projects or undertake specific additional training necessary for admission into their chosen master program (Table 12.5).

Table 12.6 University of Ulm – Eliteförderung

| | |
|-------------------------------|---|
| <i>Organizing institution</i> | University of Ulm |
| <i>Form</i> | Mono- and interdisciplinary program |
| <i>Target group</i> | Bachelor students |
| <i>Admission</i> | Invitation plus selection based on grades and motivation |
| <i>Description</i> | Individualised program which challenges students and gives them the opportunity to develop themselves, to work interdisciplinary and get acquainted with doing research |
| <i>Founded</i> | 2011 (general), different per program with a specific subject |
| <i>Participants</i> | Unknown |
| <i>Website</i> | www.uni-ulm.de/studium/individuelle-studienmodelle/elitefoerderung.html |

12.4.5 University of Ulm

The University of Ulm works according to a system of interdisciplinary and cooperative working methods, taking shape in individual study models for all students. One of the models, called “Eliteförderung”, focuses on students who want extra challenges. The total number of students participating in the Eliteförderung was unavailable to us, but in medicine, for example, 100 students take part. Educational forms, content of the programs and selection criteria also differ per discipline.

The best students are offered individual possibilities to do courses at a more advanced level. The starting point is disciplinary, but students are also encouraged to gain interdisciplinary depth, for example by joining an interdisciplinary research team for a specific project. The best 3 % of students are invited, but students can also apply by sending their CV and a motivation letter. Selection mostly depends on motivation and grades. When students successfully complete the program, they receive a certificate (Table 12.6).

12.4.6 WHU – Otto Beisheim School of Management

The WHU – Otto Beisheim School of Management is a private university, offering a study program in Business Administration. Besides, an intensive version of this undergraduate program called Bachelor in International Business Administration is also offered. In the 3-year program 210 credits instead of the regular 180 can be earned. Students spend five semesters at WHU Otto Beisheim School of Management, one semester abroad and do two summer internships, at least one of which must be completed abroad. To apply, students must send a motivation letter, CV, grades, proof of very good English skills, two letters of recommendation and proof of an apprenticeship of at least 6 weeks, or equivalent practical experience. The final round of the application process consists of an interview, a presentation on a topic

Table 12.7 WHU Otto Beisheim School of Management – Bachelor in International Business Administration

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | WHU Otto Beisheim School of Management, Vallendar |
| <i>Form</i> | Interdisciplinary bachelor program |
| <i>Target group</i> | Bachelor students |
| <i>Admission</i> | Selection based on grades, motivation and language skills |
| <i>Description</i> | This honors program is a more challenging version of the regular bachelor, for students with broad interests |
| <i>Founded</i> | 1984 |
| <i>Participants</i> | 44 (total) |
| <i>Website</i> | www.whu.edu/programme/bachelor-in-internationaler-bwl-management-bsc/ |

Table 12.8 Bonn University – Bonner Honors Program

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | Bonn University |
| <i>Form</i> | Interdisciplinary program |
| <i>Target group</i> | Bachelor students, from third semester |
| <i>Admission</i> | Selection made by faculties, based on grades |
| <i>Description</i> | A special interdisciplinary program offered on top of the normal curriculum for talented students, consisting of different elements |
| <i>Founded</i> | 2013 |
| <i>Participants</i> | 250 (total) |
| <i>Website</i> | www3.uni-bonn.de/research/portal-for-doctoral-and-postdoctoral-researchers/doctoral-studies-in-bonn/honors-program-for-ba-students-1?set_language=en |

of choice given by the candidate, a group discussion and an analytical test. Students successfully completing the program receive a bachelor degree and a certificate of business law (Table 12.7).

12.4.7 Bonn University

The goal of the university-wide program at Bonn University, founded in 2013, is early identification and individualized support for students who are especially talented. All bachelor students can apply and are selected based on criteria set by their major program of study. The Bonner Honors Program has four components: a mandatory part for all honors students regardless of their major, including courses on general scientific theory; an elective module at a different major; a 1-week summer school; and participation and discussion at an honors lecture by an outstanding scholar. Upon successful completion, students receive a special certificate, listing classes and grades with a description of the program (Table 12.8).

12.4.8 University of Paderborn

Two departments at the University of Paderborn each offer a special program to excellent students. The first is the Exzellenzprogramm in the department of economic sciences (Wirtschaftswissenschaft or WiWi). Focus in this program is on the ‘excellence seminar’, an extra individual course a student can choose. Progress is discussed in groups and in the ‘community of excellence’ network. The second program is in the department of electrical engineering, computer science and mathematics and is called the Eliteförderprogramm EIM. The focus here is on community, from which several activities are organized including seminars and excursions. Participation in research activities forms an important element (Tables 12.9 and 12.10).

12.4.9 Saarland University

The basic idea in this program, for both bachelor and master students, at Saarland University is that each student has a professor who will guide her/him through the course of study and will function as mentor and academic advisor. At least once a

Table 12.9 University of Paderborn – Exzellenzprogramm

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | University of Paderborn, Department of Economic Sciences |
| <i>Form</i> | Disciplinary program |
| <i>Target group</i> | Bachelor students from second year |
| <i>Admission</i> | Selection based on grades and motivation letter |
| <i>Description</i> | Students form a community and choose their individual seminar, on which they work during a semester. The program ends with a presentation |
| <i>Founded</i> | Unknown |
| <i>Participants</i> | Unknown |
| <i>Website</i> | wiwi.uni-paderborn.de/studierende/erfolgreich-studieren/studium-individuell-gestalten/exzellenzprogramm/ |

Table 12.10 University of Paderborn – Eliteförderprogramm EIM

| | |
|-------------------------------|---|
| <i>Organizing institution</i> | University of Paderborn, Department of electrical engineering, computer science and mathematics |
| <i>Form</i> | Interdisciplinary program |
| <i>Target group</i> | Bachelor students from second year and master students |
| <i>Admission</i> | Invitation to make application sent to all students, target group is best 10 %. Application followed by interview with two professors and presentation |
| <i>Description</i> | Participants form a community undertaking various activities and participating in departmental research projects. Successful participants receive a special certificate |
| <i>Founded</i> | 2007 |
| <i>Participants</i> | Unknown |
| <i>Website</i> | www.eim.uni-paderborn.de/lehre/elitefoerderung.html |

Table 12.11 Saarland University – Bachelor-Förderprogramm and Master-Förderprogramm

| | |
|-------------------------------|---|
| <i>Organizing institution</i> | Saarland University, Department of Computer Sciences |
| <i>Form</i> | Disciplinary program |
| <i>Target group</i> | Bachelor students from second semester, master students |
| <i>Admission</i> | Selection based on invitation and grades |
| <i>Description</i> | Individual counselling by a professor and special tutorials for honours students to enable networking |
| <i>Founded</i> | Unknown |
| <i>Participants</i> | Unknown |
| <i>Website</i> | www.cs.uni-saarland.de/index.php?id=138&L=0 (master) |

semester the professor and student meet to talk about the current status of the individual student's studies and the plans for the next semester. Each semester there will also be at least one special tutorial for all students in the program, where advanced topics are discussed. The aim is to enable participants of the program not only to finish their studies more quickly with excellent results, but also to get to know other excellent fellow students. After the first bachelor semester the students with best grades are nominated by professors. Others can apply themselves. In the master program, application is based on grades (Table 12.11).

12.4.10 University of Regensburg

The University of Regensburg takes part in the Elite Network of Bavaria (described below) and offers an Elite Graduate Program. The situation at Regensburg University is somewhat special, because an additional Honors Program is also offered to bachelor students. They can take part in some of the courses, co-curricular projects and lectures that are normally reserved to master students in the Elite Graduate Program (although they will not get any degree credit). The bachelor Honors Program consists of an Honors-Seminar, Honors-Project, mandatory internship and excursions, lectures and workshops. Additionally, it offers courses in soft skills and method training. Mentoring by professors and industry partners, also offered in the Elite Graduate Program at master level (described under the Elite Network of Bavaria below), is available to the bachelor students (Table 12.12).

12.4.11 Technical University Munich (TUM)

The Technical University Munich has a number of programs to promote excellence. It participates in the Elite Network of Bavaria (see below), it cooperates with secondary schools (TUMKolleg, see above) and it has two more programs aimed at excellent students. The university-wide program Junge Akademie is built around

Table 12.12 University of Regensburg – Honors Elite Programme

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | University of Regensburg – Faculty of Business, Economics and Management Information Systems |
| <i>Form</i> | Interdisciplinary program |
| <i>Target group</i> | Master students (but bachelor students can take part from fourth semester) |
| <i>Admission</i> | Selection based on grades, motivation, CV and interview |
| <i>Description</i> | Co-curricular program with different components, aimed to deepen students' knowledge |
| <i>Founded</i> | 2003 |
| <i>Participants</i> | 21 (total) |
| <i>Website</i> | www.honors.de |

Table 12.13 Technical University Munich (TUM) – Junge Akademie

| | |
|-------------------------------|---|
| <i>Organizing institution</i> | <i>Technical University Munich (TUM)</i> |
| <i>Form</i> | Interdisciplinary program |
| <i>Target group</i> | Bachelor and master students |
| <i>Admission</i> | Students must be nominated by a dean and/or recommended by a professor. Selection is then based on grades, letter of motivation, CV, project idea and interview |
| <i>Description</i> | Interdisciplinary network of students and faculty, where new members focus on a 1-year group project and can later take on other tasks |
| <i>Founded</i> | 2010 |
| <i>Participants</i> | Unknown |
| <i>Website</i> | www.jungeakademie.tum.de |

the concept of community. Students can join and in their first year they work in a team on a self-chosen project. In later years they can take on other tasks. The best.in.tum program is specific to the Department of Informatics and meant for the best 2 % of students. It includes special courses. In both cases, participation is by invitation or recommendation from staff. More information can be found in Baumgartner 2014 (Tables 12.13 and 12.14).

12.4.12 Elite Network of Bavaria

The state of Bavaria has a long tradition of supporting excellent students.³⁵ 'In 1966, the Bavarian state government started giving out state scholarships for the highly gifted by passing the Bavarian Gifted Student Legislation' (Elite Network

³⁵The current Elite Network of Bavaria even traces its beginnings back to 1852, 'when King Maximilian II of Bavaria founded the institution "Maximilianeum" which still exists today and

Table 12.14 Technical University Munich (TUM) – best.in.tum

| | |
|-------------------------------|--|
| <i>Organizing institution</i> | Technical University Munich (TUM), Department of Informatics |
| <i>Form</i> | Disciplinary program |
| <i>Target group</i> | Bachelor students, from third term |
| <i>Admission</i> | By invitation, based on study performance or particular contributions to the department |
| <i>Description</i> | Extra support and assignment to chair, special courses called ‘pearls of informatics’ and certificate which states that student belongs to the best two percent of the department |
| <i>Founded</i> | Unknown |
| <i>Participants</i> | Unknown |
| <i>Website</i> | www.in.tum.de/en/current-students/advising-and-support/mentoring-and-support-programs/foerderprogrammen-der-tum/promotion-of-outstanding-students-at-the-tum.html |

of Bavaria 2014). In the early 2000s, Bavaria felt it had to act to keep its position in the globalizing labor market. The current Elite Network of Bavaria started in 2002 as an initiative ‘to identify and support the most promising talents at the Bavarian universities in the best way possible’ (ibid; see also Bayerisches Staatsministerium für Wissenschaft, Forschung und Kunst 2006). The overall aim is to get highly qualified and motivated students and graduates from across the globe on board for research projects in Bavaria. It consists of five complementary programs, starting at secondary school examinations and continuing until post-doc level. Two programs are relevant for bachelor and master students: The Max Weber-Program which is an individual scholarship program for bachelor and master students, and the Elite Graduate Program which offers full honors master programs to selected students.³⁶

In the Max Weber-Program, two elements are central. First, the offering of academic support and network and second, financial support.

For all participants, events are aimed at both deepening studies and promoting interdisciplinary dialogue. The academic events are complemented by job-related events. A second central element involves financial support: every member receives an allowance of € 900 per semester and is entitled to financial aid for studies or projects abroad. Students with the best grades can apply for the program around the time of their secondary school examinations. They will then have to take an extra exam. Those who pass may be accepted into the program. Otherwise, students can still enter at later stages. Around 1,800 students per year take part in the program.³⁷

which aims at enabling the highly-gifted Bavarian secondary school graduates to fully concentrate on their academic work at a Munich university’ (Elite Network of Bavaria 2014).

³⁶The other three programs are International Doctorate Programs, Research Scholarships and International Junior Research Groups. More information about the background and development of the Elite Network Bavaria can be found in the interview with Stephan Bedke in Appendix 4.

³⁷Numbers for 2013/2014, taken from www.elitenetzwerk.bayern.de

For excellent master students, Elite Graduate Programs have been established at eight Bavarian universities. These programs ‘are designed to stimulate top academic performances of outstanding students, and simultaneously develop open-minded and upright personalities who, after their graduation, are prepared to take on extraordinary challenges in academic research or leading positions in the professional world’ (Elite Network of Bavaria 2014). The programs are organized as full master degree programs and are established as an alternative option to already existing courses. Programs are funded by the Bavarian State Ministry of Education, Science and the Arts for a maximum of two funding periods of 10 years altogether. After that time, they may continue at their own expense, while the network still guarantees the quality. Characteristics of all programs include an intensive tutoring system (details vary per university), a high level of internationalization, special extra-curricular courses towards personality development, targeted introduction of the students to academic research and into a strong interdisciplinary network across numerous universities.

In early 2014, there are 20 Elite Graduate programs. In total, around 1,000 students are enrolled. Each program has its own admission procedure, but generally speaking excellent marks in secondary school and in a bachelor program in a relevant field are necessary as well as a motivation letter and CV. Below, the specifics of each program are worked out in more detail. As most programs are run by more than one university, descriptions below are ordered by fields of study and then alphabetically, according to the title of the program in German.

12.4.12.1 Humanities, Social Sciences and Economics

(a) Art and Visual Culture Discourses from a Historical Perspective/Aisthesis

(Eichstätt, Augsburg, LMU Munich)

The program, founded in 2006, focuses on cultural and literary sciences in an international and interdisciplinary way. It enables students to connect with universities, research-institutions and museums. Admission is dependent upon knowledge of two cultural languages and willingness to learn another and an admission test in the form of an exercise. Fifteen students started in 2013–2014, and nine the year before. See interview with student Alice Hatebur in Box 12.8³⁸ for more details.

(b) Ethics of Textual Cultures

(Augsburg, Erlangen)

This modular four-semester program is interdisciplinary, with the underlying view that ethical judgments can be grasped only if they appear in the form of concrete texts.

³⁸ This interview was conducted by Florian Sloots.

Box 12.8: ‘A Great Opportunity’

Alice Hatebur studies in the Aisthesis Elite Master program at the University of Eichstätt. She holds a Bachelor in History of Art and Italian, started the Elite Master in September 2012 and spent one semester at the University of Florence.

What is the content of the program?

‘Every Monday we have three or four hours of theoretical lessons in history of art, but also in literature. We have a professor for three weeks and then we have an exam, and after that a new professor. (...) The Monday course is really the core of the program. For this we have to read, read and read... But it is a very nice thing, we have the opportunity to work together with amazing professors.’

Do you think this program gives you better opportunities for your career?

‘On the one hand, yes. The program is located in four different cities, we have a group of 40 to 60 professors and we are just nine students. That is a great opportunity. In my CV they can see that I have studied at five different universities during my master’s program, which is interesting. On the other hand, when I was looking for a random student job, first I wrote all of these qualifications on my CV, but no one hired me. Then someone gave me the advice; just don’t write all the stuff about the elite program, because you are looking for a small job. I shortened my CV and people started to accept my applications.’

How do other people in your direct environment look at the elite program?

‘In general they are very proud and positive. Or they make fun of it, like, “here is the elite student”. Once I got into a hot discussion. One of my friends has a sixteen-year old son. He told me that in his opinion it’s not fair that I get all the advantages. (...) But in general I think most people are positive, they are proud and happy for me.’

(c) Finance & Information Management

(Augsburg, TU Munich)

This program (founded in 2004) prepares for an international business career. Education is based on an interdisciplinary approach. A social project is an integrated part of the curriculum as well as workshops with business partners. Both an individual research project and the master thesis are conducted with a professional partner. Internships are offered between the semesters. Around 25–30 students participate per year.

(d) Honors in Business, Economics, and Information Systems

(Regensburg)

This program, founded in 2003, has 68 participating students. It is also connected to the honors bachelor program, described earlier under University of Regensburg

(Sect. 12.10). The master program includes a stay abroad. ‘Service to the community’ is explicitly mentioned as admission criterion.

(e) East European Studies

(LMU Munich, Regensburg)

The program is meant to give students competence in East European languages, as well as key skills that will enable them to assume responsible positions in the areas of politics and policy, economics, cultural affairs and academia. It includes obligatory internships for students in companies and institutions dealing with Eastern Europe and participation in a specially designed summer school in one of the region’s countries. Admission includes language requirements for German, English and at least one East European language.

12.4.12.2 Natural Sciences

(f) Advanced Materials Science

(TU Munich, LMU Munich, Augsburg)

This program will end and no longer accepts new applications.

(g) Fokus Physik

(Würzburg)

Since 2006, the university of Würzburg offers honors education under the name FOKUS (Forschungs Orientierter Komprimierter UniversitätsStudiengang), a research oriented compressed university degree program. Education occurs in small groups with intense individual support as well as collaboration with internationally renowned research teams. Several Max-Planck-Institutes are involved. The reduction of the period of study is achieved by a reorganization and modularization of the curriculum.

(h) Global Change Ecology

(Bayreuth)

This program, founded in 2006, has around 45 participants. Admission includes the successful passing of a specific aptitude assessment test.

(i) Macromolecular Science

(Bayreuth)

Founded in 2004, this is not a master program as such, but an accompanying elite study program to different study programs. A special degree is awarded to a total number of 57 participants. The admission procedure includes two selection interviews. The program consists of advanced modules, interdisciplinary practical courses, courses for research and writing publications, management training and research abroad.

(j) Physics with Integrated Doctorate Program

(Erlangen-Nuremberg, Regensburg)

This program, founded in 2004, lasts 4.5 years and is different from most programs in the Elite Graduate Program: it starts in the bachelor and leads to a Ph.D. (doctorate) instead of (just) a master. The first three semesters are within the regular bachelor physics program. The very research-oriented program starts in the fourth semester and involves taking part in several research projects. During this phase, the students spend 1 year together at the same university (one semester in Erlangen and one in Regensburg). The internationally oriented doctorate part of the program covers the last 3 years of the program. It includes a master thesis, an intense doctoral studies program with lectures dedicated to special topics of modern physics, study days and international workshops. Furthermore, each student spends several months abroad for scientific research projects.

(k) TopMath – Mathematics with integrated Doctorate Program

(TU Munich, Augsburg)

TopMath aims at the top 3–5 % of all mathematics majors. TopMath aims to lead talented students to a doctoral degree within a total of 6–7 years of studies. It consists of an elite bachelor phase and the doctoral program with parallel honors master. The first 2 years are within the general basic mathematics bachelor program. An increasingly research-oriented phase begins in the third year, with intensive one-to-one supported research sessions gradually replacing regular lectures. It is also possible to directly enter the TopMath doctoral program.

(l) Theoretical and Mathematical Physics

(TU Munich, LMU Munich)

The program provides an interdisciplinary combination of maths and physics. Focus is also on transdisciplinarity, i.e. the transfer of knowledge from one discipline to a related one.

12.4.12.3 Engineering and Computer Sciences**(m) Advanced Materials and Processes**

(Erlangen, Bayreuth, Würzburg)

This international study program, founded in 2005, delivers lectures in English, so a language test is included in the admission requirements. The program consists of three semesters of lectures, soft skills and research projects followed by an industrial internship and a 6-month master project. In total, 145 students have joined since this program began.

(n) Advanced Optical Technologies

(Erlangen)

This interdisciplinary master program, founded in 2007, involves institutions from outside the university, like the Fraunhofer Institute for Integrated Circuits and the Bavarian Laser Centre in Erlangen, which offer additional expertise.

(o) Bavarian Graduate School of Computational Engineering

(TU Munich, Erlangen)

The Bavarian Graduate School of Computational Engineering (BGCE, founded in 2004) can be understood as an umbrella organization for three different master programs.³⁹ All programs strive to involve the students directly in current research projects by extending the project-oriented parts of the program. In addition, block tutorials and summer schools advance the scientific and interpersonal skills of the students.

(p) Software Engineering

(Augsburg, TU Munich, LMU Munich)

The program, founded in 2006, is geared towards the top 2 % of students in computer science and aims to educate an elite. Industrial partners take part and a stay at a partner university abroad is included in the program.

(q) Technology Management

(TU Munich, LMU Munich)

The program is carried out at the Center for Digital Technology and Management (CDTM), a joint institution of TUM and LMU. The program exists in approximately the current form since 2004, but before there was already talent education at CDTM. Around 20 people enroll in the program every semester. The program prepares highly talented students for future leadership positions in the field of high-technology management. Courses are supported by business partners. A stay abroad is part of the program.

12.4.12.4 Life Sciences

(r) Experimental & Clinical Neurosciences

(Regensburg)

A number of international universities are involved in the program, which began in 2006. The intense program leads to a master degree in 1.5 years. Admission involves an entrance exam. Approximately 20 students enter the program annually.

³⁹Computational Engineering (CE), Computational Mechanics (COME), and Computational Science and Engineering (CSE).

(s) Neuro-Cognitive Psychology

(TU Munich, LMU Munich)

Founded in 2004, the main goal of this program is to provide a state-of-the-art interdisciplinary education in this brain research-oriented discipline of psychology. Cooperation is sought with universities in- and outside Germany for approximately 20 students per year who enter this program.

(t) Neurosciences

(TU Munich, LMU Munich)

Approximately 15 master students per year enter this program, which was founded in 2006. Cooperation is sought with Max-Planck-Institutes and Helmholtz Centers. Admission includes proof of research experience and two separate recommendation letters.

This description of all Elite Master programs in the Elite Network of Bavaria ends our discussion of German honors programs. We have found an interesting variety: from university-wide interdisciplinary programs to small-scale disciplinary programs and from the master programs in the Elite Network of Bavaria to a full American-style honors college in Freiburg. We now move to Germany's southern neighbors, starting with Austria in the next chapter.

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⁴⁰ **Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.

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